

**SUPPLEMENTAL  
Notice of Allowability**

Application No.

10/765,307

Examiner

MANSOUR M. SAID

Applicant(s)

MIDDLETON, BRUCE PETER

Art Unit

2629

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/16/06.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Middleton, Bruce on October 16, 2006.

2. The application has been amended as follows.

#### **IN THE CLAIMS**

**In claim 8, line 2**, after "whereby" please add --the gesture termination signal is a reduction in normal force below a threshold--.

### **Supplemental**

#### ***Allowable Subject Matter***

3. **Claims 1-20 are allowed.**

The following is an examiner's statement of reasons for allowance: Claims 1-20 are allowed since certain key features of the claimed invention are not taught or fairly suggested by prior art. **In claim 1**, the interpretive circuitry is configured to distinguish at least two meaningful ranges of the normal variable, detect transitions between said two ranges, and

Art Unit: 2629

interpret such transitions in at least one direction as gesture termination signals; distinguish multiple target zones within the input space, and test for indication value on a substantially continuous basis, where indication value expresses whether any target zone is indicated and if so which, where a target is indicated if the contemporaneous input value lies within it; upon detection of a change in indication value, register the new value and transmit it to the display-control circuitry; maintain a mapping identifying assignments of possible generands to target zones; upon detection of gesture termination, consult the registered indication value to determine whether any target zone is indicated, and if so consult the mapping to determine whether any generand is associated with the indicated target zone, and if so generate it; the display-control circuitry is configured to generate an image which includes a menu comprising an array of menu features; maintain a list of associations between particular ones of said menu features and particular ones of said target zones; upon receipt of a signal expressing a change in indication value, modify the image in a manner which visually identifies any menu feature associated with an indicated target zone as indicated, and visually identifies all other menu features as not indicated; whereby tentative selection display is established, and the user is provided with continuous feedback during transits". In claim 20, "interpretive and display-control circuitry, identify trajectory segments as gestures in accordance with a parsing rule which distinguishes two meaningful ranges of the normal force, one of which is a gesture range and the other of which is a transit range, such that the input space is divided into a gesture zone and a transit zone, and defines entry into the gesture zone as gesture initiation and exit from the gesture zone as gesture termination; whereby gestures are trajectory segments which begin at a point of entry into the gesture zone, remain continuously within the gesture zone, and end at a point of exit

Art Unit: 2629

from the gesture zone; associate possible output signals or generands with gestures in accordance with a rule which identifies a set of criteria which return values when applied to a gesture and defines a mapping between possible sets of these values and generands; the display-control circuitry is configured to generate an image which includes a menu comprising an array of menu features; upon receipt of a signal identifying a menu feature as indicated, modify the image in a manner which identifies the menu feature as indicated". The closest prior art Shkolnikov (2004/0263479 A1) teaches an input means include at least one selector, a plurality of keys to perform all commonly used functions including entering alphanumeric text and data into device, Levy (5,973,621) teaches a keypad device comprising a finger presses at an interstice, it presses on an area approximately equal to a standard key cap, but it actuating a plurality of key switches rather than only one ... a sealed cursor control device placed with the key matrix a indentation in a non-exposed side near the center of a plurality of individually actualtable key switches, however, singularly or in combination with other prior art, fail to anticipate or render the above underlined limitations obvious.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hohl et al. (2005/0140659 A1) teaches a data entry and display apparatus and methods that provide greater efficiency in data processing devices.

Rekimoto (2006/0001649 A1) teaches an information input apparatus comprises a key and a proximity sensor.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mansour M. Said whose telephone number is 571-272-7679. The examiner can normally be reached on Monday through Thursday from 8:30-6:00 P.M. The examiner can also be reached on alternate Friday from 8:30 a.m. to 5:00 p.m. EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

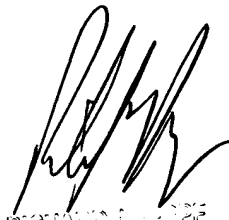
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2629

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Mansour M. Said**

10/16/06



MANSAUR M. SAID  
SUPERVISOR, PATENT EXAMINER  
TECHNICAL STAFF, 2006